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FILE NO. DOE/047/012

DATE: 10-29-81

NOV 0 9 1981

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
1588 WEST NORTH TEMPLE
SALT LAKE CITY, UTAH 84116

DIVISION OF OIL, GAS & MINING

(See Mined Land Reclamation Act 40-8-4(6))

As provided for in Section 40-8-4 UCA 1953, I hereby declare an exemption from the "Utah Mined Land Reclamation Act", in that less than 500 tons of material is being mined or less than two (2) acres of land is being excavated or used as a disposal site during a period of twelve (12) consecutive months, from the following designated claims, leases, or fee acreage.

NAME OF	CLAIM, LEASE, OR FEE ACREAGE	1,1 SECTION	LOCATION TOWNSHIP	RANGE	COUNTY
	ML 20780	NE¼, SE½	10 South	21 East	Uintah
	None				
!	None				
And the second	None				. 4

Commodity: Gilsonite

Date: October 29, 1981

Signature: /

OPERATOR: Ziegler Chemical and Mineral Corporation

ADDRESS: Star Route Vernal, Utah 84078

*TELEPHONE: 789-3593

^{*}This form needs to be filed one time only. In the event more than the minimum size requirements are mined, a Notice of Intention to Commence Mining Operations (MR Form 1) and a Mining and Reclamation Plan (MR Form 2) will need to be filed with this office.

EXHIBITS

Exhibit No. 1:

Geologic and Topographic Map, Weaver area, Scale 1" = 500'.

Exhibit No. 2:

Engineering Cross Profile A-A' (Parallel to vein), Scale 1'' = 500', horizontal & vertical.

Exhibit No. 3:

Engineering Cross Profile, B-B', SW-NE (Perpendicular to vein), Scale 1" = 500', horizontal & vertical.

Exhibit No. 4:

Engineering Cross Profile, C-C', SW-NE (Perpendicular to vein at proposed shaft No. 1) Scale 1" = 500', horizontal & vertical.

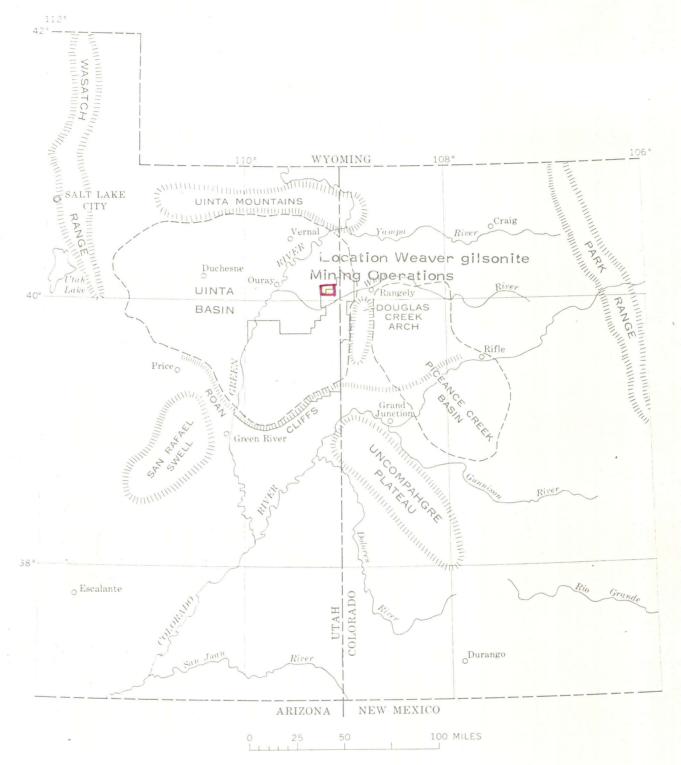
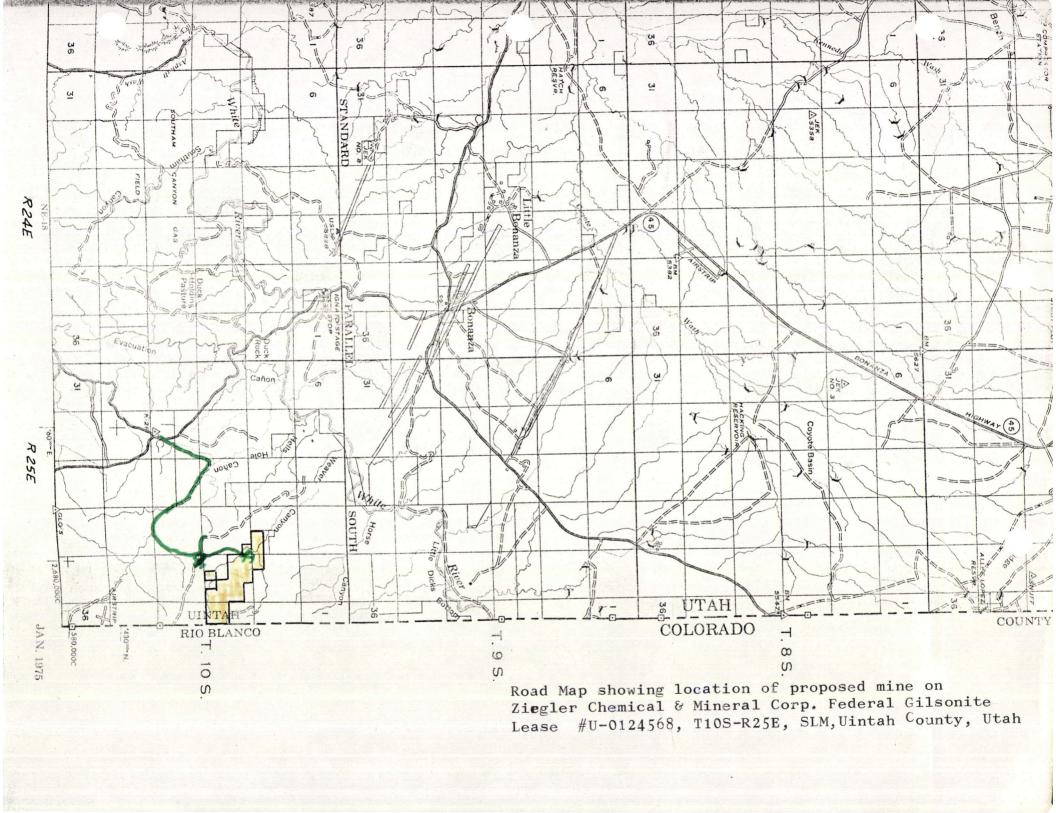


FIGURE 1.—Area of this report and some adjacent structural and physiographic features.



MINING PLAN FOR
ZIEGLER CHEMICAL & MINERAL CORP.
GILSONITE MINES
U.S. GILSONITE LEASE U-0124568
SECTIONS 13 & 14, T10S-R25E,
UINTAH COUNTY, UTAH

GENERAL MINING PROPOSAL:

The name of the mine is to be Ziegler Federal #1 Weaver. The person representing the company in this matter is John M. Godina, Sr., President. The name and address of the company is Ziegler Chemical & Mineral Corporation, P.O. Box 455, Great Neck, New York, 11021.

Ziegler Chemical & Mineral Corp. has fulfilled the obligations under the Mined Land Reclamation Act of 1975 (Section 40, U.C.A., 1933, as amended), and will employ the following mining and reclamation plan on approximately 768.99 acres of Federal gilsonite leases, as follows:

Utah, Uintah County, #U-0124568:

Township 10 South - Range 25 East, SLM:

Section 9: $N_{2}^{\frac{1}{2}}NW_{4}^{\frac{1}{4}}$ Section 10: $S_{2}^{\frac{1}{2}}SE_{4}^{\frac{1}{4}}$ Section 11: $SW_{4}^{\frac{1}{4}}SW_{4}^{\frac{1}{4}}$ Section 13: Lots 3 & 4; $W_{2}^{\frac{1}{2}}SW_{4}^{\frac{1}{4}}$ Section 14: $S_{2}^{\frac{1}{2}}NE_{4}^{\frac{1}{4}}$, $NW_{4}^{\frac{1}{4}}$, $SE_{4}^{\frac{1}{4}}SW_{4}^{\frac{1}{4}}$, $N_{2}^{\frac{1}{2}}SE_{4}^{\frac{1}{4}}$, $SE_{4}^{\frac{1}{4}}SE_{4}^{\frac{1}{4}}$ Section 15: $NE_{4}^{\frac{1}{4}}NE_{4}^{\frac{1}{4}}$

Containing: 786.99 acres

Ziegler Chemical & Mineral Corp. proposes to mine gilsonite on a U.S. Gilsonite lease along an extimated 8400 feet of the Weaver vein. It is extimated that 7 shafts will be needed to complete the mining operation. The first shaft will be sunk to a total depth of 900 to 1100' and will be located in $S_2^1NW_4^1NW_4^1NW_4^1$ of Section 14, T10S-R25E, SLM. Subsequent development shafts will be located at 1200' intervals along

the vein. These shafts will be of the 3 compartment type sunk along the width of vein, 16' in length. Mining methods will utilize a 75 H.P. airlift and chipping hammers, using conventional hoist and tipple.

The mining operation will consist of (2) 3 man crews (2 underground, 1 surface hoist) in 3 shifts. It is estimated that the operation will produce 50 tons of gilsonite per day. The ore will be transported at the rate of 3 trips per day, 16 tons to the load, from the mining site to Little Bonanza. These loads will be fully covered by a tarp. Most of the ore will be hauled as mining takes place. However, a stockpile area will be needed to stock a pile of gilsonite 200'x200'x8' or 100 tons maximum. All waste rock will be left in mine and dust from actual mining operation will be minimal.

FACILITY ARRANGEMENT:

The campsite will consist of 3 trailers plus a bath house, an electric generator, a septic tank and sewage drain field. The culinary water tank will be a 5000 gallon tank and will be buried to a depth of 6. The water lines to all facilities will also be buried.

Ziegler agrees to build and operate facilities which will provide a suitable degree of waste treatment to guarantee acceptable final disposal conditions, with full consideration of all wastes produced and including complications involved in reasonable projections into the future. All culinary water will be hauled to the facility.

All trash will be deposited in covered 55 gallon drums and will be transported to the dump at Bonanza for final disposal.

It is estimated that a total of 7 acres will be needed to facilitate the full operation.

Equipment that will be at the site will include 1 dozer (for road maintenance), 1 skid mounted hoist house, 1 frontend loader $(1\frac{1}{2}\text{yd.})$, 1 dump truck, 1 compressor - 100 H.P., 1 hoist, 75 H.P. airlift, 2 generators (1 camp & 1 mining), 3 trailers, 1 bath house and change room.

ACCESSIBILITY:

The planned mining operation can be reached by travelling south from Bonanza approximately 12 miles on Utah Highway 45, crossing the White River and Evacuation Creek. About 4 miles from the Evacuation Creek bridge at the top of the divide is a junction. The road to the right (west) leads to Rainbow and the road to the south leads to Baxter Pass.

At this junction there is an old corral on the left. Turn left (east) and travel down the dugway. The drainage at the bottom is Hell's Hole Canyon. Turn right and travel approximately 3 miles up this drainage. At this point there is a dugway on the left (east) side. Go up the dugway to the top of the mesa and drop down the dugway to the Weaver Canyon drainage. At the bottom turn left and travel down the drainage approximately 1 mile.

TRAFFIC & ROADS:

The dirt road down into Hell's Hole Canyon and down into the Weaver drainage is accessible without additional maintenance from April through the middle of November. In the spring and early summer flash floods occasionally wash out the roads in the drainage bottoms. During the winter months the area receives from 4 to 8 inches of snow which will have to be bladed with a motor grader.

It will be necessary to doze a mining road from the existing road west of the northwest corner of Section 14, T10S-R25E to shaft No. 1 (see Engineering Cross Profile C-C'). The road will be approximately 800' in length.

GEOLOGY:

U.S. gilsonite lease U-0124568 is located in Weaver Canyon and on the topographic divide between Weaver Canyon and Hell's Hole Canyon. The lease acreage is located on the northwest flank of the Hell's Hole Canyon anticline, a large northwest plunging structural nose.

The average rate of dip is 300' per mile to the northwest. The Weaver vein cuts Eocene beds of the Douglas Creek member, the Garden Gulch member and the lower 120' of the Parachute Creek member of the Green River Formation (see accompanying geologic map).

The Weaver gilsonite vein is developed in all of the above members of the Green River Formation and on the southeast even cuts down into the Wasatch Formation. Vein width is a direct functions of the stratigraphic sequence. The vein is widest where it cuts sandstone or interbedded sand and shale; narrow where it cuts massive shale sections. The vein narrows in width as it passes upward from the Garden Gulch member into the lower Parachute Creek member of the Green River Formation. The vein does not cut beds which are stratigraphically higher in section than the first (lower) oil shales of the Parachute Creek member. The "oil shale" section did not fracture because of the "resilience" or "rubbery" characteristic of the shale. The rocks fractured both above and below the oil shale section allowing the vein to open and the gilsonite to move into the open fracture, while the oil shale section merely "flexed", without significant fracturing.

Because the Douglas Creek member consists of interbedded sandstones, shales and limestones (oolitic & ostracodal to dense, thin bedded to massive), this member will be the principal producing horizon under the lease. Since the Wasatch Formation in this area consists primarily of soft, bentonitic shales the top of the Wasatch is considered to be the "base" of the workable gilsonite.

Quantity of Water to be used:

No water will be used in the underground mining operations.

Runoff Water & Drainage:

No drainage or runoff water is anticipated in the mining operations.

DURING OPERATIONS:

- (1) Mining will be conducted in a safe and orderly manner.
- (2) Ore and waste will be placed in designated areas.

AFTER OPERATIONS:

- (1) All usable buildings, machinery and debris will be removed from the surface.
- (2) All shafts and mine vents will be sealed so as to prevent unauthorized entry.
- (3) Waste pads and dumps will be regraded to rounded cross sections.
- (4) Where possible, soil material will be placed over the building sites, roads and storage areas after regrading.
- (5) All disturbed areas will be scarified and fertilized prior to reseeding with an approved seed mixture. An environmental impact matrix accompanies this application.

Ziegler Chemical & Mineral Corp.

John M. Godina, Sr., President

